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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,248	07/05/2006	Shinichi Wada	050850-07107	6074

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Dickinson Wright PLLC
James E. Ledbetter, Esq.
International Square
1875 Eye Street, N.W., Suite 1200
Washington, DC 20006

EXAMINER

ASHFORD, TAMARA R

ART UNIT	PAPER NUMBER
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2627

MAIL DATE	DELIVERY MODE
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12/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,248	Applicant(s) WADA ET AL.	
	Examiner Tamara Ashford	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-7 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is in response to the papers filed on August 27, 2009.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. PCT/JP05/13830, filed on July 28, 2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saji et al. (US 20020159373 A1) in view of Kim (US 2003001212 A1), and in further view of Davis et al. (US 5,684,776).

Regarding claim 7, Saji et al. (hereinafter referred as "Saji") discloses a slot-in type disk apparatus (Fig. 1A, 1, and Paragraphs 10, and 76) comprising a base body (Fig. 1A, 90), a traverse base (Fig. 1A, 100, and Paragraph 77) and loading motor (Fig. 1A, 281, and Paragraph 82) provided on the base body, a spindle motor (Fig. 1A, 110, and Paragraph 78) held by the traverse base and configured to rotate a disk, and a

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traverse cam member (Fig. 5A, 210a, b, and Paragraph 101) provided on a slider (Fig. 5A, 210) for displacing the traverse base vertically with respect to the base body. Saji does not disclose a spindle cam member. Kim discloses a disk apparatus (Fig. 2, 100) comprising a spindle cam member (Fig. 3, 102, 121, and Fig. 4, 120, 121) which is driven by a loading motor and upwardly (upon disc insertion) and downwardly (upon disc ejection) moves a spindle motor with respect to a traverse base (Paragraph 23, and 25) to adjust the skew between the optical pickup and the disk. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a spindle cam member in the disk apparatus disclosed by Saji to move the spindle motor relative to the transverse base as described by Kim to provide skew adjustment between the optical pickup and the disk. Kim also teaches that the spindle cam is configured to lift the spindle for skew adjustment after the disk is placed on the turntable (Paragraph 24). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the traverse cam member and spindle cam members such that the spindle motor movement (vertically) correlates with the disk being fully loaded on the turntable of the traverse base (i.e. after the traverse base has been moved vertically to chuck the disk on the turntable). Neither Saji, nor Kim discloses the spindle motor is biased toward the traverse base by a resilient member. Davis et al. (hereinafter referred as "Davis") discloses a disk apparatus in which a spindle motor is biased toward a base by a resilient member (Column 7, lines 16-21). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a resilient member to bias the spindle

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motor toward the traverse base to reduce vibration between the two components as they move.

Regarding claim 2, Saji does not disclose a slider provided with a spindle cam member. As discussed above with regard to claim 7, Kim discloses the spindle cam is provided on a slider (Fig. 1, 12, and Fig. 4, 120). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a slider with a spindle cam member to the disk apparatus disclosed by Saji, as with Kim, to provide skew adjustment.

Regarding claim 3, Saji discloses the slider provided with the traverse cam member is located on a side of the traverse base (Fig. 1A, 100, and 210). As previously discussed, Saji does not disclose a spindle cam member. Kim discloses the spindle cam is provided on a slider that also comprises a cam for a traverse base. It would have been obvious to provide the slider disclosed by Saji with the spindle cam, as disclosed by Kim, to efficiently utilize the disk apparatus space and reduce the number of components.

Regarding claim 4, Saji does not disclose the spindle motor includes a plurality of pins inserted into a spindle cam member. Kim discloses the spindle motor includes a pin (Fig. 4, 301, and Paragraph 23) inserted into the spindle cam member such that the motion of the spindle cam member driven by the loading motor is transmitted to the spindle motor through the pin. Kim does not disclose additional pins inserted into the spindle cam member, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include additional pins, since it has

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been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8 (7th Cir. 1977).

In addition, it would have been obvious to combine the teachings of Kim with the invention of Saji for the reasons previously discussed with regard to claim 7.

Regarding claim 5, Saji discloses the loading motor is driven to bring the spindle motor to an uppermost lifted position (Fig. 5B, and Paragraphs 103, and 109) and then the traverse base (along with the spindle motor) is lowered (Fig. 5C, and Paragraph 104). After the traverse base is lowered and the disk is to be ejected, the loading motor is reversely rotated to bring the spindle motor to the uppermost lifted position again (Paragraphs 110, and 112), and then the traverse base is lowered (Paragraph 113).

Regarding claim 6, Saji discloses the spindle motor is actuated and a disk is rotated by a predetermined phase or predetermined time as the optical head is operated to read or write information (Paragraph 104) after the traverse base is lowered. Upon completion of the read or write operation, the loading motor is reversed to drive lowering of the spindle motor and ejection of the disk as discussed with regard to claim 5.

Allowable Subject Matter

4. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed August 27, 2009 have been fully considered but they are not persuasive. Applicants argue that each of Saji, Kim, and Davis fails to disclose a disk apparatus having a traverse cam member and a spindle cam member that are moved correlatively in the horizontal direction (Page 9, lines 5-7). The Examiner respectfully disagrees because, as discussed above with regard to claim 7, Saji discloses a disk apparatus having a traverse cam member, and Kim discloses a spindle cam member with movement correlated with the seating of a disk on a turntable. Both Saji and Kim disclose the cam members are provided on a slider that moves horizontally as a disk is loaded (Saji Paragraph 101, and Kim Paragraph 23). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a spindle cam member in the disk apparatus disclosed by Saji to move the spindle motor relative to the transverse base as described by Kim to provide skew adjustment between the optical pickup and the disk. In addition, it would have been obvious to one of ordinary skill to form the traverse cam member and spindle cam members such that the spindle motor movement (vertically) correlates with the disk being fully loaded on the turntable of the traverse base (i.e. after the traverse base has been moved vertically to chuck the disk on the turntable).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara Ashford whose telephone number is (571)270-5877. The examiner can normally be reached on Mon-Fri 7:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571)272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. A./
Examiner, Art Unit 2627

/Craig A. Renner/
Primary Examiner, Art Unit 2627